

A. Objection to the Specification

The specification stands objected to based on an informality in the Abstract. Accordingly, the Abstract has been amended to address, *inter alia*, the Examiner's request for appropriate correction.

B. Claim Rejections -- 35 U.S.C. § 102

Claims 1-5, 7, 8, 10, 11, 13, 15-18, 21-24, 26-28, 30, 31, 33, and 34 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,343,116, issued to Winsor (the "Winsor reference"). These rejections are respectfully traversed.

As independent claims 13 and 26 and their various dependent claims have been cancelled without disclaimer, the Examiner's rejection of these claims have been rendered moot. Original claim 1 has also been cancelled without disclaimer; however, to the extent that one or more of the Examiner's rejections may be asserted against new independent claim 36 and the various dependant claims depending therefrom, these rejections will now be addressed.

The Examiner asserts that the Winsor reference discloses a channel comprising a plurality of channel segments having two ends, and a plurality of electrodes (30, 32, 38a-c, 40a-c, Fig. 4) positioned adjacent to each sidewall and at the two ends of each channel segment. In response, Applicant respectfully submits that the Winsor reference fails to recite each and every element of the pending claims, including, for example, a lamp wherein "a voltage source associated with each of said electrodes is configured to produce an activation voltage which alternates in polarity along said series of channel segments" as recited in claim 36.

The Winsor reference generally discloses a discharge lamp which includes two end-electrodes and a number of sidewall electrodes provided between the two end-electrodes. These sidewall electrodes, however, function quite differently from the end-electrodes. Specifically, the sidewall electrodes of Winsor are configured to "modify the shape of the arc discharge within the discharge chamber." (column 3, lines 51-52). That is, insofar as planar lamps tend to emit non-uniform light, the sidewall electrodes are intended to even out the voltage field near the corners. More particularly, the reference gives four primary purposes for the sidewall electrodes: (1) increasing overall brightness, (2) increasing light uniformity, (3) increasing brightness range over which the lamp may be operated, and (4) helping to start illuminate the light.

The power supplies 42, 44, and 46 (associated with the sidewall electrodes) each operate at a different frequency from each other "and each at a different frequency than the end electrode power supply" (column 5, lines 19-21). See, also, the example power supply diagram in Fig. 3 of the Winsor reference.

In contrast, the present invention, while comprehending a variety of methods of providing power, includes a system wherein "a voltage source associate with each of said electrodes is configured to produce an activation voltage which alternates in polarity." That is, as recited in the specification of the present invention, if there are four channel segments in series, the first segment would experience a voltage which may be equal in magnitude but opposite in sign from the second segment, with which it would share a common electrode.

In summary, the Winsor reference fails to disclose, suggest, or teach many elements of independent claim 1 as amended and the various dependent claims depending therefrom. Accordingly, Applicants respectfully request that the Section 102 rejections be withdrawn.

C. Claim Rejections -- 35 U.S.C. § 103

Claims 6, 20, and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Winsor reference in view of U.S. Pat. No. 4,978,888 issued to Anandan et al. (the "Anandan reference"). Applicant respectfully traverses these rejections and submits that no combination of the cited reference and prior art of record would include each and every element of the pending claims.

The Anandan reference generally discloses a thick-film fluorescent lamp which includes a number of electrodes printed on the inside of two opposing flag glass plates. The plates are sealed together, and space between the plates is filled with, for example, mercury and an inert gas. The electrodes, which are referred to as "split hollow electrodes", are purported to result in more uniform brightness.

With respect to originally filed claims 6, 20, and 29, which generally related to the use of reflective coatings, the Examiner asserts that the Anandan references discloses the use of a reflective layers, e.g., aluminum, to increase a lamp's efficiency.

As discussed above, independent claims 1, 13 and 26 and their various dependent claims (including 6, 20 and 29) have been cancelled without disclaimer. Therefore the Examiner's rejection of these claims have been rendered moot. To the extent that one or more of the Examiner's rejections of claim 1 may be asserted against new independent claim 38 or 39, or any other dependent claim, Applicant submits that neither the Winsor nor the Anandan reference includes each and every element of independent claim 36. Thus, no combination of the cited references and prior art of record would include each and every element of any of the pending claims, including claims 38 and 39. As such, Applicants do not need to address in detail the fact

that there is no motivation or suggestion to combine the references. Applicant therefore requests that all Section 103 rejections be withdrawn with respect to the claims as amended.

D. Conclusion

In view of the above remarks, Applicants respectfully submitted that the foregoing remarks fully address the Examiner's objections, and that all of the pending claims comply with 35 U.S.C. § 112, are patentable over the art of record, and are in condition for allowance.


Attached hereto is a marked-up version of the changes made to the specification and claims by the present Amendment. The attached page is captioned "Version with markings to show changes made."

A Notice of Allowance respecting all pending claims is earnestly solicited. Should the Examiner wish to discuss any of the above in greater detail, then the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

Date March 7, 2002

By



Daniel R. Pote
Reg. No. 43,011

SNELL & WILMER, L.L.P.
One Arizona Center
400 East Van Buren
Phoenix, Arizona 85004-2202
(602) 382-6325

Version with markings to show changes made

In the Specification:

The Abstract on page 17 has been amended as follows:

A lamp includes [has] an enclosure with partitions [has] defining a channel having channel segments and/or providing multiple paths [directions] for an electrical arc to travel. The channel segments can be implemented by adding additional electrodes in the [a] channel formed by the partitions, by forming a channel where the arc may travel in multiple directions, or by a combination of these [the] methods. The channel segments and multiple directions of arc travel tend to reduce the voltage required to start the lamp.

In the Claims:

Claims 1-35 have been cancelled without disclaimer.

New claims 36-59 have been added.